

United States District Court
Central District Of California
WESTERN DIVISION

UNITED STATES OF AMERICA,

Plaintiff,

vs.

FRANCISCA RODRIGUEZ GAMBOA,

Defendant.

Case No. CR 18-00379-ODW

**ORDER AND REPORT ON
FACTUAL FINDINGS
FOLLOWING LIMITED REMAND
FROM THE NINTH CIRCUIT,**

I. PROCEDURAL HISTORY

On January 29, 2015, Gamboa, a citizen of Mexico, was found in Los Angeles County. She had been residing in the United States illegally since 1995. Defendant Gamboa was charged by way of a single count information with violation of title 8 U.S.C. §§1326(a), (b)(2), being an illegal alien found in the United States following deportation. On August 24, 2018, the defendant, Gamboa, pled guilty. A month following her guilty plea, she filed a motion to withdraw that plea with a request that the Information be dismissed. Both motions were granted.

1 Her earlier removal was based on her January 10, 2011, conviction of the
2 following felonies: 11378 H&S: Possession of a controlled substance for sale
3 (methamphetamine); 11370.1(a) H&S: Possession of a controlled substance
4 w/firearm; 12280(b) PC: Possession of assault weapon; and 273a(a) PC: Child
5 endangerment. Gamboa was sentenced to six years' state prison, in California
6 Superior Court, County of Los Angeles (LASC), case number BA372131-2.

7 The motion to withdraw her guilty plea [DE-28] was based on the argument
8 that five days after her guilty plea, the Ninth Circuit issued its opinion in *Lorenzo v.*
9 *Sessions*, 902 F.3d 930 (9th Cir. Aug. 29, 2018)ⁱ, holding for the first time that
10 California Health and Safety Code section 11378's definition of methamphetamine
11 is facially overbroad because it encompasses more types of isomers of
12 methamphetamine, e.g. geometric isomers, than does the federal Controlled
13 Substances Act, and thus methamphetamine convictions do not meet the
14 Immigration and Nationality Act's definition of a controlled substance. **Because Ms.**
15 **Gambo's 2011 methamphetamine conviction under §11378 was the sole basis of**
16 **her removal from the United States**, her order of removal was unlawful under
17 *Lorenzo*, and the information must be dismissed under §1326(d).

18 On December 17, 2018, based on the holding in *Lorenzo I*, the Court granted
19 the motion permitting Ms. Gamboa to withdraw her guilty plea, setting aside her
20 conviction and dismissing the Information. [DE-49 & 50]. On January 16, 2019 the
21 government filed a timely Notice of Appeal [DE-58]. Shortly thereafter, the Ninth
22 Circuit withdrew its opinion in *Lorenzo I*, (913 F.3d 930 (9th Cir.2019)), and replaced
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1 it with a memorandum disposition, *Lorenzo v. Whittaker* (“*Lorenzo II*”), 752 F.App’x
2 482 (9th Cir 2019). Like *Lorenzo I*, the memorandum disposition reached the same
3 conclusion without addressing the factual argument posed by the government that
4 while facially the California statute would appear to be categorically broader than
5 the Controlled Substance Act 21 USC § 812, the difference was illusory. The
6 California statute included geometric isomers of methamphetamine, which the
7 government argued, do not exist. Carrying this premise to its logical conclusion, if
8 there are in fact no geometric isomers of methamphetamine, California does not
9 punish conduct not proscribed by federal statute and is not, therefore categorically
10 broader than the Controlled Substances Act. Because this issue was not addressed
11 by the district court, the matter was remanded to the trial court specifically to make
12 the determination as to the validity of the government’s argument. *United States*
13 *v. Rodriguez-Gamboa*, 946 F.3d 548, 553 (9th Cir. 2019). The Circuit Court affirmed
14 the district court’s decision to permit Gamboa to withdraw her guilty plea, but
15 vacated the order dismissing the Information.

16 II. EVIDENTIARY HEARING ON REMAND

17 On February 24, 2020 the Court held an evidentiary hearing to address the
18 single question whether geometric isomers of methamphetamine exist. Testifying
19 at the hearing were experts in organic chemistry retained by the government.
20 Appearing, testifying and being subjected to cross-examination by Defendant
21 Gamboa were: Dr. Travis Williams, Professor of Chemistry at USC; Brian Stoltz,
22 Ph.D., Professor of Chemistry at Cal Tech; Daniel Willenbring, Ph.D., an analyst with
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1 the Drug Enforcement Administration, Diversion Control Division.

2 Dr. Stoltz earned his B.S.in Chemistry and his B.A. in German from Indiana
3 University of Pennsylvania in 1993, and his Ph.D. in Organic Chemistry from Yale.
4 He also held a post-doctoral appointment at Harvard from 1998 to 2000. He has
5 published over 250 articles relating to chemistry and is an associate editor of the
6 Beilstein Journal of Organic Chemistry, an international, peer-reviewed, Open
7 Access Journal publishing research and reviews in all areas of organic chemistry.

8 Dr. Daniel Willenbring, is a Drug Science Specialist, Drug & Chemical
9 Evaluation Section, Diversion Control Division of the DEA. He received a dual
10 undergraduate degree in Chemistry and Computer Science and his doctorate in
11 Organic Chemistry. He completed his post-doctoral fellowship at the University of
12 Pittsburgh sponsored by the NIH.

13 Dr. Travis Williams, Professor of Organic and Organometallic Chemistry at
14 USC, earned his B.S. from Cal Tech in 1998 and his Ph.D. in Organic Chemistry from
15 Stanford in 2005, and was awarded an NIH Postdoctoral Fellow from 2005 to 2007.

16 **A. DR. STOLTZ**

17 As an example of the complexity of the subject matter, quoted here are the
18 conclusions of Dr. Stoltz and his rationale for those conclusions. It should be noted
19 that all three chemists held the same view supporting the government's position,
20 based on the same factual assumptions. In his Declaration, Dr. Stoltz set forth the
21 scope of his assignment from the government. This can be found in Paragraph 2 of
22 Govt's Exh 5, [DE-77.] "I was asked to provide an opinion relating to whether
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1 'geometrical (diastereomeric) isomers' of methamphetamine exist. As set forth
2 below, aside from constitutional isomers, only two isomers of methamphetamine
3 exist, and they are enantiomers of each other. The enantiomers of
4 methamphetamine are optical isomers; they are not geometrical or diastereomeric
5 isomers." During the evidentiary hearing, Dr. Stoltz was asked to read from his
6 Declaration, specifically paragraph 8. of Govt's Exh. 5, [DE-77.]

7 The stereoisomers for methamphetamine are two enantiomers named
8 levomethamphetamine and dextromethamphetamine, also known as minus
9 methamphetamine and plus methamphetamine. In the case of
10 methamphetamine these enantiomers are optical isomers. There are no
11 other stereoisomers of methamphetamine and enantiomers would never be
12 considered diastereomers. In other words, **geometrical diastereomeric**
13 **isomers of methamphetamine do not exist.** (Transcript of hearing at p.33,
14 [DE-82], Emphasis added.)

15 Later, with the use of a plastic model, he demonstrated why it is impossible
16 for there to be a methamphetamine molecule that is a geometric isomer.

17 "Again, those definitions, the CIS and TRANS isomer and the geometrical
18 isomer depend on having particular structural elements present in the molecule.
19 And, so, the methamphetamine molecule doesn't have those, the rigid cycloalkane
20 or the olefin. And, so, they're really nothing but single bonds here. And, so, these
21 rotate freely and **would never result in a geometrical isomer.**" (Trans. at p.46, DE-
22 82, Emphasis added.)

B. DR. WILLIAMS

Indicated that when he was contacted by the USAO to opine about geometric isomers of methamphetamine he first went to the so-called "Gold Book", published by the International Union of Pure and Applied Chemistry ("IUPAC") which in his words "is the most authoritative definition of chemical nomenclature that is available anywhere." It is the Compendium of Chemical Terminology (Exh. 4 of DE-77.) In addressing the question of the meaning of "geometric isomer" he consulted the Gold Book to determine, to the extent possible, the California Legislature's understanding of what that term might reasonably mean while drafting the relevant code section. He learned that the IUPAC strongly recommended avoidance of the use of the term geometric isomer as obsolete. (*Id.* at p. GEX 98) It apparently has been replaced with the term "diastereomers." (Trans. at pp. 57, 72-73, 87, DE-82).

In his research of all of the definitions of geometric isomers in the Gold Book, he reached the following conclusion:

We are fortunate in the way that definition is constructed, that it very exclusively and specifically defines the chemical phenomenon that can give rise to geometrical isomerism. And we can systemically eliminate each of those phenomenon as impossible for the structure of methamphetamine. (Trans. at pp. 73, DE-82)

He indicated that he had reviewed the Declarations of Drs. Stoltz and Willenbring and agrees with their conclusions on the question presented. In

1 explaining his opinion, first he read from his declaration:

2 While methamphetamine has many transient geometrical confirmations
3 differing by bond rotations at room temperature, none of these contain a
4 cycloalkane or olefin group.

5 In clarifying the importance of this statement he stated:

6 Because the Gold Book - - when the international committee took up the
7 subject of defining how the word "geometrical" isomer was to be used, they
8 strictly said that a geometrical isomer is a case of CIS-TRANS isomerism, and
9 that CIS-TRANS isomerism specifically regarded a carbon-carbon double
10 bond or a ring.

11 We're fortunate in this case that because they were specific and limiting in
12 the language they chose. We can individually disqualify the structure of
13 methamphetamine as conforming to any of those particular phenomena.

14 He concluded by confirming that there are no geometric isomers of
15 methamphetamine. (Trans. at pp. 79-80, DE-82)

16 **C. DR. WILLENBRING**

17 Dr. Daniel Willenbring is a Drug Science Specialist, Drug & Chemical
18 Evaluation Section, Diversion Control Division of the Drug Enforcement
19 Administration. He has read the Declarations of Drs. Stoltz and Williams and agrees
20 with their conclusions that there are no geometric isomers of methamphetamine.
21 (Trans. at p. 95, DE-82).

22 He explained that "optical isomers" of methamphetamine are covered under
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1 the Federal Controlled Substances Act ("CSA"). The AUSA asked: "As a
2 hypothetical, if you were to amend the federal controlled substances act so that
3 for methamphetamine it covered both optical and geometric isomers, would that
4 make any difference?" He responded "No, it would not [. . .] because there are no
5 geometric isomers of methamphetamine. *Id.* at p. 95

6 He noted however, there are geometric isomers of cocaine, which are
7 regulated under the CSA and demonstrated why such isomers of
8 methamphetamine do not and cannot exist. (Trans. at pp. 95-97, DE-82).
9 **Methamphetamine has no geometric isomers.** This is the same conclusion
10 reached by Dr. Halberstadt. (*Id.* at p. 115.) On cross-examination he remained
11 unwavering in his opinion.

12 III. FINDINGS OF FACT

13 A. The Court finds the chemistry experts' declarations and hearing testimony
14 credible and compelling. Each of the experts possessed superior education
15 and experience in organic chemistry to lend gravitas to their opinions. Each
16 was familiar with and consulted the International Union of Pure and Applied
17 Chemistry, ("IUPAC") ostensibly the authoritative work on the definition and
18 nomenclature of chemical terms. (*Id.* at p.72.)

19 B. While under no obligation to do so, the Defendant offered no rebuttal
20 experts or evidence. However, Defendant skillfully cross-examined each of
21 the experts on their opinions and the reasons for those opinions.

22 C. Each of the experts concluded there are no "geometric," "geometrical," or
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1 “geometrical (diastereomeric) isomers” of methamphetamine. (*Id.* at pp. 28-
2 33, 80, 95-96.)

3 1. The structure of the methamphetamine molecule makes geometric
4 isomers of the molecule impossible. (*Id.* at p.28.)

5 2. Dr. Stoltz testified as to his rationale for concluding there are no
6 geometric isomers of methamphetamine because: “. . . the simple
7 explanation is that methamphetamine doesn’t have any of the
8 structural requirements that would allow for a geometrical constraint
9 and therefore geometrical isomer. It simply doesn’t have them, and
10 so, again, to a chemist looking at this structure, I think it’s – and
11 knowing the definition of a geometrical isomer, it’s quite obvious
12 actually that there are no geometrical isomers of this compound.” *Id.*
13 at p. 28.

14 3. Geometric isomers are one of two broad classes of stereoisomers. The
15 other is the optical isomer. *Id.* at p. 65. Dr. Stoltz reading from Hawley’s
16 Condensed Chemical Dictionary, Govt’s Exh 5. to the hearing exhibits.

17 D. These conclusions are supported by authoritative dictionaries and texts.
18 Each of the experts identified the International Union of Pure and Applied
19 Chemistry, Compendium of Chemical Terminology. Also cited was Hawley’s
20 Condensed Chemical Dictionary, *Id.*

21 E. The term “isomer” refers to molecules that contain the same atoms, but
22 where those atoms are connected in a different spatial arrangement. Exh. 4,
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1 p. GEX-99. Different terms are used to describe the relationship of atoms in
2 a given type of isomer.

3 1. "Optical isomer" is an obsolete synonym for stereoisomers with
4 different observable optical properties. They should be described as
5 diastereoisomers or enantiomers. Use of the term optical isomers is
6 strongly discouraged.

7 2. Enantiomer describes isomers that are non-superimposable
8 mirror images of one another: that is, molecules with the same
9 chemical formula, but with atoms arranged differently in three-
10 dimensional space such that the two isomers cannot be reoriented to
11 fit directly over one another. DEX-96

12 3. Diastereomer is a broad catch-all term, referring to any
13 stereoisomer that is not an enantiomer. GEX-95. Diastereomers with
14 observable optical properties are also "optical isomers." Such isomers
15 would include stereoisomers with observable optical properties that are
16 not superimposable mirror images of one another Hawley's GEX 111-
17 112.

18 4. Diastereomer without observable optical properties, however,
19 are not "optical isomers." Diastereomers that do not have observable
20 optical properties can include "geometric isomers". Trans. p.22, DE-
21 82."

22 5. "Geometric isomers" refers to a type of isomer where atoms or
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1 groups of atoms are locked in a particular spatial position either on the
2 same side [CIS] or on the opposite side [TRANS] of a rigid structure – a
3 double bond, olefin, or saturated ring. *Id.* GEX 93, 98, IUPAC, GEX 115-
4 116 (Hawleys) Because methamphetamine lacks these structural
5 features, geometric isomers are impossible.

6 6. Deuterium is a rare, naturally occurring form of hydrogen (an
7 isotope of hydrogen) that has one extra neutron.¹ The relevant atom
8 is still hydrogen. However, because it has a slightly different atomic
9 makeup, it has a special name. “The 2-H, the Deuterium, occurs in
10 natural sources. About 1 in 5,000 hydrogen atoms in nature is a
11 deuterium. (Trans at p. 33-37.) So, in any batch of methamphetamine
12 that’s ever been produced, 1 in every 5,000 atoms of hydrogen, is a
13 deuterium. And that occurs everywhere on earth in roughly that
14 amount.” (*Id.*) Conventionally, chemists do not consider hydrogen
15 isotopes when analyzing what isomer exist for a given molecule.
16 (Trans at pp. 61-61, 98.)

17 The DEA does not take deuterium into account when considering
18 whether or not a chemical structure falls within the federal Controlled
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20 ¹ Deuterium is not relevant to the court’s inquiry or within the scope of the
21 Circuit’s remand order. It was covered during the course of the hearing because
22 the parties’ interests extend beyond the parameters of this case. The Court,
23 however, is constrained by the issues in the case before it.
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1 Substances Act. (Trans. at p. 98.) Deuterated compounds are
 2 “regulated just the same as their parent compound(s).” Trans at p. 98.
 3 Even considering such isotopes (which is contrary to chemical
 4 convention), methamphetamine still has no “geometric” or
 5 “geometrical” isomers. Trans at pp.35, 37.) Geometric isomers
 6 remain impossible given the structure of the methamphetamine
 7 molecule. (Trans at p.36,)

8 Deuterated isotopomers or methamphetamine (isomers created by
 9 the presence of deuterium) would all qualify as “Optical isomers.”
 10 Trans at pp. 39, 52-53, 92. Such isotopomers are referred to as
 11 “deuterium-labeled methamphetamine) and are covered by the
 12 federal CSA. (Trans at p.98,)

13 IV. RELEVANT STATUTES

14 Gamboa’s prior felony conviction which resulted in her earlier removal was
 15 Health & Safety Code Section 11378, possession for sale of a controlled substance,
 16 specifically methamphetamine. Methamphetamine is listed as a Schedule II
 17 controlled substance under both state and federal law. Where the statutory
 18 schemes differ is in how the isomers of methamphetamine are treated.

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 20 California Health and Safety Code Section 11055 provides:

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 22 Schedule II; substances included:
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1 (a) The controlled substances listed in this section are included in Schedule II.

2 . . .

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4 (d) Stimulants. Unless specifically excepted or unless listed in another schedule, any
5 material, compound, mixture, or preparation which contains any quantity of the
6 following substances having a stimulant effect on the central nervous system:

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8 . . .

9 (2) *Methamphetamine, its salts, isomers, and salts of its isomers.* (Emphasis
10 added.)

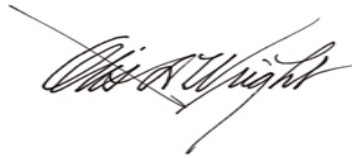
11 Health & Safety Code § 11033. Isomer: As used in this division, except as
12 otherwise defined, the term “isomer” includes optical and geometrical
(diastereomeric) isomers. (Emphasis added.)

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14 Under federal law, the term “methamphetamine isomer” means the optical
15 isomer only. See 21§ USC 802(14).

16 As can plainly be seen by the unambiguous text of the statute, possession of a
17 substance which contains either the optical **or** the geometric isomers of
18 methamphetamine is theoretically punishable under state law. Under federal law,
19 only optical isomers of methamphetamine are prohibited. Thus, it would appear that
20 the state statute is facially broader than its federal counterpart. That is, a broader
21 range of theoretical conduct is punishable under state law. However, according to
22 the government and supported by the government’s experts, there is no realistic

1 probability of punishment for possession of geometric isomers of methamphetamine
2 under state law (or at all). Based on evidence adduced during the hearing, the Court
3 agrees.

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5 IT IS SO ORDERED.
6 DATED: April 15, 2020



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The Honorable Otis D. Wright II
United States District Court Judge